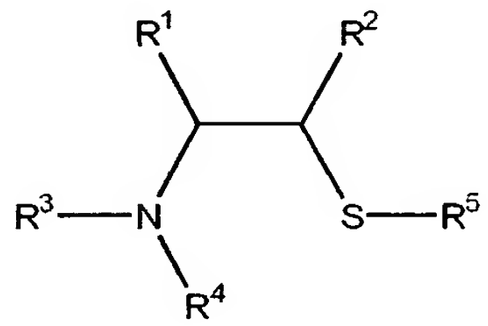
WHAT IS CLAIMED IS:

1. An aminothiol compound, having a general formula I,



I

wherein R^1-R^5 are substitutable ligands; and

R^1 is aryl or alkyl of C2-C9;

R^2 is aryl or alkyl of C1-C9;

R^3 is alkyl of C1-C9;

R^4 is alkyl of C1-C9; or

R^3, R^4 and N form a cycle; and

R^5 is H or alkyl of C1-C6.

13. The aminothiol compound as claimed in claim 1, wherein R^3, R^4 and N form a three-to-eight- membered heterocycle.

14. The aminothiol compound as claimed in claim 12, wherein R^3, R^4, O and N form a ring by means of morpholine.

15. The aminothiol compound as claimed in claim 1, wherein R^3, R^4, O and N form a ring by means of morpholine.

16. The aminothiol compound as claimed in claim 1, which are chiral ligands capable of reacting with organic metal compounds to form

metal complexes and then react as alkylmetal with carbonyl compounds to produce chiral alcohols in asymmetric addition reactions.

17. The aminothiol compound as claimed in claim 16, wherein said carbonyl compound is aldehyde.

18. The aminothiol compound as claimed in claim 16, wherein said carbonyl compound is ketone.

19. The aminothiol compound as claimed in claim 16, wherein said organic metal is Zn, Cu, or Ti.